AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 4 (after FIELD OF THE INVENTION), as follows:

The present invention relates to a combination of a piston and a piston ring, or a piston assembly, which is applicable to a high-powered internal combustion engine, and more particularly applicable to a high-powered internal combustion engine such as a diesel engine operated at high temperature and high combustion pressure.

Please amend the paragraph beginning at page 1, line 17, as follows:

However, in recent years, a demand for realizing a high-powered internal combustion engine has been increasing from the point of view of environmental protection. Under such high-powered operation accompanying ~~with the~~ high combustion temperature and ~~the~~ high combustion pressure, the aforementioned aluminum-based piston has been ~~could not achieve functions such as~~ durability, heat resistance ~~or~~and the like. Accordingly, there has been investigated a piston made of steel capable of ~~securing the above functions~~improved performance even under ~~the~~ high-powered operating conditions.

Please amend the paragraph beginning at page 2, line 2, as follows:

However, ~~in a case~~ where the ~~combination of the~~ aforementioned piston made of steel and the piston ring made of steel is adopted, a lower surface of the piston ring is liable to stick to a lower surface of the piston ring groove ~~formed to the piston~~ due to friction heat ~~thereby to occur adhesion~~. When such a phenomenon is observed, there has been a possibility of ~~posing~~

problems such that a following-up property of the piston ring with respect to a cylinder liner would be remarkably lowered, so that the functions inherently required for the piston ring cannot be achieved.

Please amend the paragraph beginning at page 2, line 13, as follows:

The present invention was conceived to substantially ~~eliminate~~reduce defects or drawbacks encountered in the prior art mentioned above, and an object of the present invention is to provide a combination of piston and piston ring which ~~is~~has excellent ~~in~~ durability and is capable of being ~~suitably applied to~~used in a high-powered internal combustion engine such as a high-powered diesel engine or the like operated under ~~a~~ high combustion temperature and ~~a~~ high combustion pressure.

Please amend the paragraph beginning at page 2, line 21, as follows:

In order to achieve the above object, the inventors of the present invention ~~had~~ investigated ~~about~~ the aforementioned phenomenon of ~~the~~ sticking ~~to cause the~~caused by adhesion. As a result, the following fact was confirmed. Namely, from the ~~reason~~fact that a definite contact-flaw formed by a contact of an upper surface of the piston ring to an upper surface of the piston ring groove was not observed, it was confirmed that the piston ring was pressed and closely contacted to the lower surface of the piston ring groove. Further, the lower surface of the piston ring contacting to the lower surface of the piston ring groove was in an oxygen-depleted state at a center portion of the lower surface of the piston ring.

Please amend the paragraph beginning at page 3, line 7, as follows:

Under this contacting state, when the contact portion ~~was applied with a~~ underment micromotion-friction caused by a large heat load and ~~a~~ piston flap, the adhesion phenomenon occurred at the closely contacting portion, thus confirming that the aforementioned sticking due to ~~the~~ friction heat occurred.

Please amend the paragraph beginning at page 3, line 12, as follows:

A combination of piston and piston ring ~~according to the present invention~~ for ~~solving~~reducing the aforementioned problems ~~had~~has been achieved on the basis of the aforementioned findings. That is, ~~the present invention provides~~ an improved structure is provided by a combination of piston and piston ring, ~~comprising~~including: a piston having a piston ring groove in which at least the piston ring groove ~~portion of the piston~~ is made of steel, the piston reciprocally moving in a cylinder bore; a piston ring made of flake graphite cast iron, spheroidal graphite cast iron, white cast iron, malleable cast iron, vermicular graphite cast iron, or alloy cast iron having an elastic modulus ranging from 130000 to 170000 MPa, ~~and~~ fitted into to the piston ring groove; and a hard coat film formed to at least an outer peripheral sliding surface of the piston ring.

Please amend the paragraph beginning at page 3, line 22, as follows:

~~According to the structure of the above invention, since~~Since the piston ring made of cast iron is fitted into the piston, at least the piston ring groove portion being made of steel, even in the event that the contact portion between the piston ring and the piston ring groove is applied with a large heat load and micromotion-friction under the condition that the lower surface of the piston ring is closely contacted to the lower surface of the piston ring groove, irregularities

(micro-convexoconcaves) are formed on the lower surface of the piston ring due to the existence of graphite peculiar to the cast iron constituting the piston ring, and the irregularities contribute to form oil sumps. Simultaneously, the graphite itself functions as a self-lubricating substance, so that the adhesion phenomenon would not occur at the contact portion between the piston ring and the piston ring groove as a mate member made of steel. Further, since the elastic modulus of the piston ring is set within the range from 130000 to 170000 MPa, it is easy for the piston ring to follow up with respect to the cylinder liner.

Please amend the paragraph beginning at page 4, line 17 through page 5, line 5 as follows:

~~In the above combination of piston and piston ring, it is preferable that the piston ring is made of one cast iron selected from the group consisting of flake graphite cast iron, spheroidal graphite cast iron, white cast iron, malleable cast iron, vermicular graphite (compacted graphite) cast iron and alloy cast iron.~~

~~Further, in the above combination of piston and piston ring, it is preferable that the piston ring has an elastic modulus ranging from 130000 to 170000 MPa.~~

~~According to this structure of the present invention, since the elastic modulus of the piston ring is set within the above range, it is easy for the piston ring to follow up with respect to the cylinder liner, so that it becomes possible to provide a combination of piston and piston ring which is excellent in durability and capable of being suitably applied to a high-powered internal combustion engine.~~

Please amend the paragraph beginning at page 5, line 24, as follows:

FIG. 2, including FIGs. 2A to 2C, is a cross sectional view showing the combination of piston and piston ring according to the present exemplary embodiment of the invention;

Please amend the paragraph beginning at page 6, line 15, as follows:

As a piston 11 ~~constituting the present invention~~, there is adopted a piston having a piston ring groove 12 which is at least made of steel. For example, there would be used a piston which is ~~an~~ entirely made of steel, or a piston of which at least the piston ring groove 12 is made of steel while portions other than the piston ring groove 12 ~~being~~might be made of metal such as aluminum alloy or the like.

Please amend the paragraph beginning at page 7, line 5, as follows:

As a piston ring 21 ~~constituting the present invention~~, a piston ring ~~composed of cast iron would be adopted, and a kind of the cast iron is not particularly limited. In this connection, however, for example, it is preferred to use a piston ring made of one cast iron selected from the group consisting~~made of flake graphite cast iron, spheroidal graphite cast iron, white cast iron, malleable cast iron, vermicular graphite (compacted graphite) cast iron ~~and~~or alloy cast iron, having an elastic modulus ranging from 130000 to 170000, is adapted.

Please amend the paragraph beginning at page 7, line 21, as follows:

The piston ring 21 made of the above-mentioned cast iron is formed with irregularities on the surface ~~of the piston ring 21~~ due to the existence of graphite peculiar to ~~the~~ cast iron ~~constituting the piston ring 21~~. Therefore, even in a case where the lower surface 23 of the piston ring 21 is closely contacted to the lower surface 13 of the piston ring groove 12, the irregularities

would function as oil sumps in which lubricating oil is retained, and the graphite functions as a self-lubricating substance. Further, since the elastic modulus of the piston ring 21 is set within the range from 130000 to 170000 MPa, it is easy for the piston ring 21 to follow up with respect to the cylinder liner 30 during reciprocal motion of the piston 11 in the cylinder bore. As a result, the adhesion phenomenon would not occur even if a micromotion friction (i.e. a friction caused by a fine motion of the piston ring in the piston ring groove) is applied to the contact portion between the piston ring 21 and the piston ring groove 12 made of steel as an object member.

Please amend the paragraph beginning at page 8, line 8, as follows:

Out of these various piston rings 21, ~~a piston ring made of cast iron having an elastic modulus ranging from 130000 to 170000 MPa can be preferably used from a viewpoint of improving the following up property. Further,~~ a spheroidal graphite cast iron having an elastic modulus ranging from 150,000 to 170,000 MPa is be more preferably usable.

Please amend the paragraph beginning at page 9, line 3, as follows:

~~By the way, in~~ In a high-intensity operation of a diesel engine or the like in which ~~accompanies and arises~~ a high combustion temperature and a high combustion pressure are present, ~~there are caused~~ temperature differences are caused among ~~the~~ respective portions of the piston ring. Especially, the temperature of a gap portion (i.e., outer peripheral portion) of the piston ring becomes high.

Please amend the paragraph beginning at page 9, line 9, as follows:

In the conventional piston ring made of steel, since the elastic modulus thereof is large ~~to be~~ (e.g. about 200,000 MPa), an end portion of the gap portion expanded due to the temperature difference strongly abuts against the cylinder liner 30 formed to an inner surface of the cylinder bore to thereby easily cause ~~an~~ abnormal wear or abrasion.

Please amend the paragraph beginning at page 9, line 15, as follows:

~~According to the piston ring 21 constituting the present invention, however,~~ However, the elastic modulus of the piston ring 21 is set within the range ~~as~~ prescribed hereinbefore, and the piston ring 21 can easily slide along the shape of the inner peripheral portion of the cylinder liner 30. Therefore, the expanded gap portion of the piston ring 21 would not strongly abut against the inner peripheral surface of ~~the~~ cylinder liner 30, thus effectively suppressing the occurrence of the abnormal wear.

Please amend the paragraph beginning at page 11, line 22, as follows:

As described above, the combination 1, as piston assembly, of the piston and the piston ring ~~according to the present invention~~ comprises a piston 11 formed with a piston ring groove 12 in which least the piston ring groove portion of the piston is made of steel, the piston 11 reciprocally moving in a cylinder bore, a piston ring 21 fitted into the piston ring groove 12, and a hard coat film formed to at least outer peripheral sliding surface of the piston ring 21.

Please amend the paragraph beginning at page 22, line 21, as follows:

Furthermore, in the combination of the piston and the piston ring of the present invention, ~~when~~since the elastic modulus of the piston ring is set to a predetermined range, the following-up

up property of the piston ring with respect to the cylinder liner ~~can be~~is further improved. Accordingly, it becomes possible to provide the combination of the piston and the piston ring, which is excellent in durability and capable of being suitably applied to a high-powered internal combustion engine.